

To keep up-to-date with the draft releases and all new materials from MAS and OHTAC, be sure to visit the "What's New" section of our websites. Alternatively, you can subscribe to the e-Bulletin and other OHTAC/MAS releases via our RSS feed. To find out more, click on the icon to the right or visit:

http://www.health.gov.on.ca/english/providers/program/mas/mas_ohtac_rss.html



NEWS & UPDATES

The Ontario Health Technology Assessment Series (OHTAS) is now indexed on MEDLINE

The OHTAC and MAS online journal series, *OHTAS*, was recently approved by MEDLINE for indexing on their bibliographic database. MEDLINE is the premiere database of the National Library of Medicine and contains over 16 million references to journal articles in life sciences with a concentration on biomedicine. This is a tremendous step forward for OHTAC and MAS and reflects the ongoing commitment of these groups to improving the quality of the journal and to providing comprehensive, timely, and impartial analyses of the clinical and cost effectiveness of health technologies.

The decision whether or not to index a journal for MEDLINE is an important one and is made by the Director of the National Library of Medicine. The selection committee meets only three times a year and approximately 140 titles are considered at each meeting. Of these, only 20% - 25% of titles are selected for indexing. Selection criteria include: scope and coverage, quality of content, quality of editorial work, production quality and geographic coverage.

With inclusion onto MEDLINE, the OHTAS series will now be within reach of a vastly expanded audience through familiar access portals such as PubMed. Researchers and clinicians worldwide will soon see MAS and OHTAC reports amongst their search results.

Transdermal Continuous Oxygen Therapy (TCOT)

A hospital recently requested that OHTAC review a new, small oxygen delivery device that extracts oxygen from the air and delivers it continuously to wounds via a small tube. The technology is referred to as 'Transdermal Continuous Oxygen Therapy' (TCOT) and is licensed in Canada as a class 2 medical device. The wound site is then covered with occlusive or pressure dressing and changed as needed.

The technology is being widely marketed in Ontario, but OHTAC was unable to find any evidence of its clinical effectiveness. Indeed, a preliminary literature search did not identify any randomized controlled trials or comparative observational studies. The literature is sparse and consists of animal studies, human case reports, and grey literature (abstracts) from poster presentations. This lack of evidence of clinical effectiveness has meant that no review can or will be done.

NEW REPORTS FROM MAS & OHTAC

The following OHTAC recommendations and MAS reports have been recently completed and are available for download at the [Ontario Health Technology Assessment Series \(OHTAS\)](#) website, along with the OHTAC recommendations concerning the use of the related technologies in health care facilities across Ontario.

1. *Cancer Screening With Digital Mammography for Women at Average Risk for Breast Cancer, Magnetic Resonance Imaging (MRI) for Women at High Risk: An Evidence-Based Analysis, OHTAS; Vol.10, No.3*

Breast cancer is a hormone-related cancer in which risk increases with age, partly as a result of increased lifetime hormonal exposure. In terms of screening asymptomatic women for this disease, film mammography (FM) is typically used for asymptomatic average-risk women over the age of 50. For women ages 40-49, however, a 2006 review from MAS found that the technology's benefits for this population were less clear and OHTAC did not, at the time, recommend screening asymptomatic women in this age group. A further review was conducted to determine the effectiveness of digital mammography (DM) in the screening of average-risk women (regardless of age), or what role magnetic resonance imaging (MRI) or the addition of FM to MRI might play in the screening of women at high risk of breast cancer.

After reviewing the scientific literature concerning these topics, MAS has found that there is moderate quality evidence that DM is significantly more sensitive (ranging from 70% to 78%) than FM (ranging from 51% to 55%) for the screening of asymptomatic women under the age of 50, pre- or peri-menopausal women, and those with heterogeneous or extremely dense breast tissue (regardless of age). Evidence was also found supporting the greater sensitivity of MRI over FM for screening of women at high risk based on genetic/familial factors and further evidence that the sensitivity of MRI plus mammography is higher than that of MRI or FM alone.

Based on the MAS analysis, OHTAC has made recommendations concerning the use of DM, and MRI plus FM screening, now available from the OHTAC/MAS website.

2. *Solid Organ Transplantation for End Stage Organ Failure (ESOF) in Persons with HIV, OHTAS Vol. 10, No. 4*

With the development of highly active anti-retroviral therapy (HAART) for the treatment of HIV infection, the survival rates of persons living with HIV infection have improved to the point that many will now experience ESOF well before they develop life-threatening conditions related to the HIV infection. As with those who are HIV negative, persons living with HIV infection are at risk for ESOF from both viral (e.g. hepatitis B and C) and non-viral sources (e.g. coronary artery disease, diabetes, and hepatocellular carcinoma).

Given this improved long-term prognosis, MAS conducted a review of the available evidence concerning the effectiveness of solid organ transplantation HIV+ patients. The results of this analysis and OHTAC's recommendations concerning organ transplantation in HIV+ persons are now available for download.

OPEN FOR PUBLIC COMMENT

The following reports are or will soon be available in draft form on the [MAS website](#) for public comment and input. MAS and OHTAC encourage readers to download and review our reports and provide feedback, comments and suggestions to: OHTACinfo.moh@ontario.ca.

1. Cardiac Imaging Mega-Analysis

In July 2009, MAS began work on 'Non-Invasive Cardiac Imaging Technologies for the Diagnosis of Coronary Artery Disease (CAD)', an evidence-based review of the literature surrounding different cardiac imaging modalities for patients suspected of having CAD. This project came about when the Health Services Branch at the Ministry of Health and Long-Term Care asked MAS to provide an evidentiary platform on the effectiveness and cost-effectiveness of non-invasive cardiac imaging modalities.

After an initial review of the strategy and consultation with experts, MAS identified five key non-invasive cardiac imaging technologies for the diagnosis of CAD. Evidence-based analyses have been prepared for each of these five imaging modalities: cardiac magnetic resonance imaging (cardiac MRI), single photon emission computed tomography (SPECT), 64-slice computed tomographic angiography (CT Angiography), stress echocardiography (stress ECHO), and stress ECHO with contrast. For each technology, an economic analysis was also completed. A summary decision analytic model was then developed to encapsulate the data from each of these reports.

The preliminary drafts of the MAS reports – which represent one of the most comprehensive undertakings in the examination of these technologies to date – are now available for download along with OHTAC's recommendations concerning the clinical utility of these technologies.

The Toronto Health Economics and Technology Assessment (THETA) collaborative has also produced an associated economic report entitled: *The Relative Cost-effectiveness of Five Non-invasive Cardiac Imaging Technologies for Diagnosing Coronary Artery Disease in Ontario*

This report can be accessed directly by [clicking here](#).

2. Use of Contrast Agents with Echocardiography in Patients with Suboptimal Echocardiography

Echocardiography can provide a wealth of information for the diagnosis of cardiovascular diseases and the assessment of damage to the heart valves. Some patients, however, including critically ill patients on ventilators, patients who've undergone recent chest operations, and the obese, are more likely to have poor echocardiograms than others. Echocardiography studies performed in the intensive care unit (ICU) are also frequently inadequate or suboptimal because of the difficulties in positioning patients properly, poor lighting, chest tubes and bandages.

The aim of contrast echocardiography is to provide better quantification of left ventricular (LV) volume and assessment of LV wall motion analysis than echocardiography alone. Contrast agents could potentially be used in 5% to 10% of resting echocardiography exams and in an estimated 30% of stress echocardiography tests due to suboptimal echocardiograms. The American Society of Echocardiography guidelines stated that 75% to 90% of suboptimal echocardiography results can yield interpretable results with the use of contrast agents. The objective of this report is thus to assess the ability of modern microbubble contrast agents to enhance the visualization of cardiac structures in patients with suboptimal echocardiography results.

COMING SOON

In the coming weeks, the following reports will be made available on the [MAS website](#):

Extracorporeal Lung Support Technologies - Bridge to Recovery and Bridge to Lung Transplantation in Adult Patients - For decades, the first choice of treatment for patients with acute respiratory distress syndrome (ARDS) and progressive chronic respiratory failure has been mechanical ventilation. Yet recent clinical studies have suggested that ventilator-induced lung injury can adversely affect the lungs and patient outcomes. MAS has thus undertaken a review of alternative technologies for the treatment of such patients, specifically, interventional lung assist (ILA) and extracorporeal membrane oxygenation (ECMO), with a focus on their effectiveness, safety, and cost-effectiveness in the improvement of survival rates. The final draft of the MAS report, along with OHTAC's recommendations concerning the use of these technologies in hospitals throughout Ontario, will soon be available.

Cardiac Diagnostic Imaging for the Assessment of Myocardial Viability: Mega-Analysis - MAS is examining the evidence of effectiveness and cost-effectiveness of non-invasive cardiac imaging modalities for the assessment of myocardial viability. This review includes Cardiac PET and MRI.

Clinical Utility of Laboratory Tests for Celiac Disease - This review will focus on the clinical utility of serologic tests for the diagnosis of celiac disease in adults and children.

As usual, OHTAC and MAS welcome your questions and comments. Please submit them to us at: OHTACinfo.moh@ontario.ca. If you are unable to find the report you are looking for from the Medical Advisory Secretariat website or the [Ontario Health Technology Advisory Committee](#) website, please contact us directly at OHTACinfo.moh@ontario.ca to request a copy by email.